What is claimed is:

1. An interface device for interfacing a user with a computer, the computer running an application program and generating a graphical image and a graphical object, the interface device comprising:

a user manipulatable object in communication with the computer;

a sensor to detect a manipulation of the object, the sensor providing a signal to the computer to control the graphical image; and

an actuator adapted to provide a haptic sensation to the palm of the user in relation to an interaction between the graphical image and the graphical object, the actuator comprising a member that is deformable to provide the haptic sensation.

2. An interface device according to claim 1 wherein the member is bowed to provide the haptic sensation.

3. An interface device according to claim 1 wherein the member is biased away from the palm of the user.

4. An interface device according to claim 1 wherein the graphical image is a graphical hand and wherein the haptic sensation is provided to the user when the graphical hand grasps the graphical object.

5. An interface device according to claim 1 wherein the user manipulatable object comprises an instrumented glove.

6. An actuator for providing a haptic sensation to a user interfacing with a computer running an application program, the actuator comprising:

a deformable member having a first end, a second end, and an intermediate portion; and

a tendon capable of displacing the first end relative to the second end in response to the computer to cause the intermediate portion to contact the user and thereby provide a haptic sensation to the user.

7. An actuator according to claim 6 wherein the deformable member is a leaf spring.

8. An actuator according to claim 6 wherein the tendon passes through a guide member fixed to the first or second end of the deformable member.

9. An actuator according to claim 6 wherein the deformable member is capable of providing a controllable kinesthetic force to the user.

10. An actuator according to claim 6 wherein the deformable member is capable of providing a tactile sensation to the user.

11. A mouse for interfacing a user with a computer generating a graphical environment comprising a graphical hand, the mouse comprising:

a housing;

a position detector to detect a position of the mouse, the position detector capable of providing a first position signal to the computer to control the position of the graphical hand in the graphical environment; and

a finger position detector to detect a position of a finger of the user, the finger position detector capable of providing a second position signal to the computer to control a graphical finger on the graphical hand in relation to the position of the finger of the user.

12. A mouse according to claim 11 further comprising an actuator capable of providing a haptic sensation to the finger of the user.

13. A mouse according to claim 12 wherein the actuator comprises a deformable member.

14. A mouse according to claim 11 further comprising a position detector for each finger on the hand of the user.

15. A mouse according to claim 11 wherein the finger position detector comprises a button on the mouse.

16. A mouse according to claim 15 wherein the button comprises first and second sensing portions.

17. A mouse for interfacing a user with a computer, the mouse comprising:

a housing;

a position detector to detect a position of the mouse;

a member adapted to contact a finger of the user, the member being capable of being moved by the finger in two directions; and

a member position detector to detect a position of the member.

18. A mouse according to claim 17 wherein the member position detector is an analog sensor.

19. A mouse according to claim 17 further comprising a second member adapted to contact a second finger and a second member position detector.

20. A method for interfacing a user with a computer running an application program, the computer generating a graphical environment comprising a graphical hand, the method comprising:

providing a mouse in communication with the computer;

detecting a position of the mouse;

controlling the position of the graphical hand in relation to the detected position of the mouse; and

controlling a shape of the graphical hand in relation to an amount of manipulation of the mouse.

21. A method according to claim 20 further comprising providing a haptic sensation to the user in relation to the interaction of the graphical hand with a graphical object.

22. A method according to claim 20 wherein the manipulation of the mouse results from the movement of a finger of the user.

23. A method according to claim 22 wherein the shape of the graphical hand is related to the movement of the finger of the user.

24. A method according to claim 22 further comprising controlling the shape of the graphical hand in relation to the movement of a second finger of the user.

25. A method according to claim 20 wherein the mouse is movable in three dimensions.